

within $\pm 2\%$, take corrective action by repairing or replacing the analyzer. Before using a CLD for emission testing, demonstrate that the corrective action resulted in a value within $\pm 2\%$ combined quench.

(g) *Exceptions.* The following exceptions apply:

(1) You may omit this verification if you can show by engineering analysis that for your NO_x sampling system and your emission calculations procedures, the combined CO_2 and H_2O interference for your NO_x CLD analyzer always affects your brake-specific NO_x emission results within no more than $\pm 1.0\%$ of the applicable NO_x standard.

(2) You may use a NO_x CLD analyzer that you determine does not meet this verification, as long as you try to correct the problem and the measurement deficiency does not adversely affect your ability to show that engines comply with all applicable emission standards.

§ 1065.372 NDUV analyzer HC and H_2O interference verification.

(a) *Scope and frequency.* If you measure NO_x using an NDUV analyzer, verify the amount of H_2O and hydrocarbon interference after initial analyzer installation and after major maintenance.

(b) *Measurement principles.* Hydrocarbons and H_2O can positively interfere with an NDUV analyzer by causing a response similar to NO_x . If the NDUV analyzer uses compensation algorithms that utilize measurements of other gases to meet this interference verification, simultaneously conduct such measurements to test the algorithms during the analyzer interference verification.

(c) *System requirements.* A NO_x NDUV analyzer must have combined H_2O and HC interference within $\pm 2\%$ of the flow-weighted mean concentration of NO_x expected at the standard, though we strongly recommend keeping interference within $\pm 1\%$.

(d) *Procedure.* Perform the interference verification as follows:

(1) Start, operate, zero, and span the NO_x NDUV analyzer according to the instrument manufacturer's instructions.

(2) We recommend that you extract engine exhaust to perform this verification. Use a CLD that meets the specifications of subpart C of this part to quantify NO_x in the exhaust. Use the CLD response as the reference value. Also measure HC in the exhaust with a FID analyzer that meets the specifications of subpart C of this part. Use the FID response as the reference hydrocarbon value.

(3) Upstream of any sample dryer, if one is used during testing, introduce the engine exhaust to the NDUV analyzer.

(4) Allow time for the analyzer response to stabilize. Stabilization time may include time to purge the transfer line and to account for analyzer response.

(5) While all analyzers measure the sample's concentration, record 30 seconds of sampled data, and calculate the arithmetic means for the three analyzers.

(6) Subtract the CLD mean from the NDUV mean.

(7) Multiply this difference by the ratio of the flow-weighted mean HC concentration expected at the standard to the HC concentration measured during the verification. The analyzer meets the interference verification of this section if this result is within $\pm 2\%$ of the HC concentration expected at the standard.

(e) *Exceptions.* The following exceptions apply:

(1) You may omit this verification if you can show by engineering analysis that for your NO_x sampling system and your emission calculations procedures, the combined HC and H_2O interference for your NO_x NDUV analyzer always affects your brake-specific NO_x emission results by less than 0.5% of the applicable NO_x standard.

(2) You may use a NO_x NDUV analyzer that you determine does not meet this verification, as long as you try to correct the problem and the measurement deficiency does not adversely affect your ability to show that engines comply with all applicable emission standards.

§ 1065.376 Chiller NO_2 penetration.

(a) *Scope and frequency.* If you use a chiller to dry a sample upstream of a